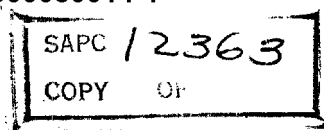


SECRET

9 January 1956



CMCC Doc. No. 151X5.369

Copy 1 of 2

Page 1 of 1

Dear Dick:

We are forwarding herewith eight copies of Monthly Progress Letter No. 6, covering work performed on System No. 4 during the period extending from 1 November 1956 to 1 December 1956.

Sincerely,

A handwritten signature in cursive script that reads "Burt".

Burt

Enclosures:

CMCC Doc. No. 163X5.25

Copies 1-8 of 12

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Monthly Progress Letter No. 6

Contract No. A-101

System 4

1 November 1956 to 1 December 1956

CMCC Document No. 163X5.25

Copy **3** of 12 Copies

(This document contains a total of 4 sheets,
including this title sheet.)

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SECRET1. General

During the period covered by this progress letter:

- (1) The radome for the system antennas was delivered.
- (2) Most of the prototype production of sub-assemblies for the receivers was completed.
- (3) Transistor preamplifiers and magnetic amplifiers for receiver servos were delivered.
- (4) Tuner modifications for bands II through VII were considerably advanced.
- (5) Breadboard testing of the tape transport was satisfactorily completed.
- (6) The design of the system wiring harness was completed.

2. Antennas

Many of the prototype antennas were diverted for use on another system. This required that replacement antennas be fabricated. The replacements will be available no later than mid-December.

3. Receiving Equipment

- a. The packaging of the band I tuner is still underway.



- c. Wiring modifications are now underway on the tuners for bands IV through VII.
- d. Completion of all of the tuners in bands II through VII was delayed because subcontracted gear trains were not delivered.

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has already been designed.

4. Camera Indicator

Approximately 50 percent of the printed circuit boards required for the prototype camera indicator have been completed and packaging of the indicator is well underway. Design of the 400-foot magazine for the camera is continuing.

5. Audio Programming Equipment

Due to space limitations in the audio programming package, all recording circuitry associated with tape tracks 1 through 12 will be located in the tape transport package. Printed circuit design for these units is underway. The basic breadboard design for the AGC track (track 13) has been completed and prototype layout and design is well underway. Breadboard design for the special data track (track 14) has not yet been completed.

6. Video Programming Equipment

It was anticipated that the basic design for the video programming circuits would be completed by the end of this period. Because of certain circuit design problems, however, this work was about 90 percent completed. Present scheduling calls for over-all testing of the video circuits, including the indicator and the video programming equipment, by mid-December.

7. Tape Transport

During the period covered by this letter, extensive testing of the tape-transport breadboard was conducted. During the

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first half of this period, the tape transport was used with one-half mil tape. At the start of testing, difficulties in maintaining proper tape feed were encountered. Although performance with one-half mil tape was improved during the last half of this period, testing with one-half mil tape was ended and the decision was made to use one-mil tape (on the same reel) in future tests because of the limited time available. The transport will be returned to the shop early in December for repackaging in final prototype form.

8. Power Supply

Power supply design was completed and construction is well underway. However, some of the component parts have not yet been delivered from the vendors.

9. Preflight Test Set

The characteristics of the preflight test set have been established and are described in a technical exhibit titled, Proposal for System 4 Preflight Test Set.

10. Planning

During the next reporting interval, the major effort will be directed toward completing the fabrication of all System 4 equipments so that flight testing may be undertaken at the earliest possible date. In addition, a concerted effort will be made to complete the fabrication of the Channel I receiving equipment, to complete the remaining shop and wiring work on the bands II through VII tuners, to complete the design of all the video programming equipment, and generally to complete all fabrication and testing as near to the first of January as possible.

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